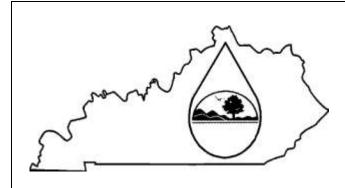
KPDES FORM C



KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT APPLICATION

A complete application consists of this form and Form 1. For additional information, contact Surface Water Permits Branch, (502) 564-3410.

Name of Facility:					Cou	ınty:							
					Α	GENCY							
I. OUTFALL LO	CATION					USE							
For each outfall lis	t the latitude a	to the nea	arest	15 seconds a	nd the	name	of the	receivi	ng wate	r.			
Outfall No.		LATITUDE		LONGITUDE									
(list)	Degrees	Minutes	Seconds	Degre	es	Minutes	conds	RECEIVING WATER (name)					

I. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

- A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfall. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.
- B. For each outfall, provide a description of: (1) all operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) the average flow contributed by each operation; and (3) the treatment received by the wastewater. Continue on additional sheets if necessary.

OUTFALL NO.	OPERATION(S) CONTRIBUT	ING FLOW	TREATMENT					
(list)	Operation (list)	Avg/Design Flow (include units)	Description	List Codes from Table C 1				

H. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES (Continued)

	` 1	wing table.)			No (Go t	o Section III.)		
OUTFALL	OPERATIONS	FREQU	ENCY			FLOW		
NUMBER	CONTRIBUTING FLOW	Days Per Week	Months Per Year	Flow (in n		Total vo		Duration (in days)
(list)	(list)	(specify average)	(specify average)	Long-Term Average	Maximum Daily	Long-Term Average	Maximum Daily	
HI. PRODUC	CTION ffluent guideline limi Yes (Complete Ite No (Go to Section D. Are the lim operation)? Yes (Complete Ite	em III-B) List	effluent gu	ideline categor	y: ine expressed i	n terms of produ		·
maximum outfalls.	E. If you answarded the second							
	AXZE	DACEDAN	V DDODI	ICTION			A 6641 O	46-11 ··
Quantity Par		RAGE DAII	_		uct Matarial	Ftc	Affected O	
Quantity Per		RAGE DAII Measure	_	peration, Prod	uct, Material, ecify)	Etc.	Affected O (list outfall n	
IV. IMPROV F. Are you n	VEMENTS ow required by any found of wastewater equired in this application	Measure ederal, state of present or pra	or local authotices or andes, but is	peration, Prod (specification) nority to meet and y other environ not limited to	ny implementa mental program , permit condi	tion schedule for ns which may af tions, administr	the construction of the discharative or enforce	on, upgrading,
IV. IMPROV F. Are you n or operatio	VEMENTS OW required by any form of wastewater equing this application enforcement complete. Yes (Complete	ederal, state of pment or prant or prant of the bliance sched	or local authotices or andes, but is	peration, Prod (specification) pority to meet and y other environ not limited to stipulations, con	ny implementa mental program , permit condi- urt orders and s	tion schedule for ns which may af tions, administr grant or loan con	the construction of the discharative or enforce	on, upgrading,
IV. IMPROV F. Are you n or operation	VEMENTS Ow required by any foon of wastewater equinous this application enforcement comp	ederal, state of pment or prant of the followarse checked with the followarse checked	or local authotices or andes, but is ule letters, wing tabl	peration, Prod (specific production) (specific production) (specif	ny implementa mental program , permit condi- art orders and g	tion schedule for ns which may af tions, administr grant or loan con	the construction of the co	on, upgrading, rges described ement orders,
or operation	VEMENTS OW required by any foon of wastewater equing this application enforcement compared by the complete on of Condition of Condition	ederal, state comment or prant	or local authorices or anodes, but is ule letters, wing table	peration, Prod (specific production) (specific production) (specif	ny implementa mental program , permit condi- art orders and g	tion schedule for ns which may af tions, administr grant or loan con n-IV-B)	the construction of the discharative or enforce ditions.	on, upgrading, rges described

G. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

V. INTAKE AND EFFLUEN	T CHARACTERISTICS		
space provided.	before proceeding—Complete one VA, VB, and VC are included or	e set of tables for each outfall And separate sheets numbered 5-18.	notate the outfall number in the
which you know or have reas	on to believe is discharged or may	Title III, Section 313) listed in Talbe discharged from any outfall. Four any analytical data in your posse	r every pollutant you list,
POLLUTANT	SOURCE	POLLUTANT	SOURCE
A. Is any pollutant listed in Item- intermediate or final product	or byproduct?	YSIS f a substance which you currently t No (Go to Item	

VII. BIOLOG	JICAL IVAICI	TY TESTING DATA		
				toxicity has been made on any of you
discharges or on	a receiving water	in relation to your discharge wit	thin the last 3 years?	
	Yes (Identif	y the test(s) and describe the	heir purposes below)	No (Go to Section VIII)
I. CONTI	RACT ANALYS	IS INFORMATION		
Were any of the	e analyses reporte	d in Item V performed by a contr	act laboratory or consulting f	irm?
		me, address, and telephone numb		No (Go to Section
	IX) analyzed by	y each such laboratory or firm be	llow)	
NA	ME	ADDRESS	TELEPHONE	POLLUTANTS
			(Area code & number	r) ANALYZED (list)
~~~~				
I. <del>CERTIFIC</del>	CATION			
-certify under r	enalty of law tha	ut this document and all attachm	ents were prepared under my	direction or supervision in accord-
<del>rith a system d</del>	esigned to assure	that qualified personnel properly	gather and evaluate the infor	rmation submitted. Based on my inc
f the person or	<del>rpersons who ma</del>	<del>nage the system, or those persor</del>	<del>is directly responsible for gat</del>	thering the information, the informa
		nowledge and belief, true, accur uding the possibility of fine and i		e that there are significant penalties plations.
VAIVIE AIND O	FFICIAL TITLE	<del>(type or print):</del>	<del>i elephone nu</del>	JMBER (area code and number):
IGNATURE			<del>DATE</del>	

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. (See instructions)

V. INTAKE AND	EFFLUENT CI	HARACTERIST		OUTFALL NO.								
Part A – You must	provide the resul	ts of at least one	analysis for every p	ollutant in this ta	ble. Complete one ta	ble for each out	fall. See instruction	s for additional detai	<del>ls.</del>			
				<del>2.</del> EFFLUENT				3. UN (specify if		•	4. INTAKE (optional)	
<del>1.</del> POLLUTANT	a. Maximum	Daily Value	b. Maximum 3 (if avai		c. Long-Term (if avail		<del>d.</del> <del>No. of</del>	a. Concentration	<del>b.</del> <del>Mass</del>	a. Long-Term		<del>b.</del>
	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	Analyses			(1) Concentration	(2) Mass	No of Analyses
a. Biochemical Oxygen Demand (BOD)												
b. Chemical Oxygen Demand (COD)												
c. <del>Total Organic</del> <del>Carbon (TOC)</del>												
d. <del>Total</del> <del>Suspended</del> <del>Solids (TSS)</del>												
e. <del>Ammonia</del> (as N)												
f. Flow (in units of MGD)	VALUE		VALUE		VALUE				MGD	VALUE		
g. <del>Temperature</del> (winter)	VALUE VALUE				VALUE				<u>°e</u>	VALUE		
h. Temperature	VALUE VALUE				VALUE			<del>°</del> e	VALUE			
a. <del>pH</del>	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM				STAN	DARD UNITS			

Part B In the	"X" col	umn, place an	"X" in the Believe	ed Present	column for each pol	lutant you l	know or have reaso	re is present. Place an "X" in the Believed Absent column for each pollutant you believed that the complete one table for each outfall. See the instructions for additional details at					nt you believe	
MARK to be absent.	mark the Be	elieved Present	column for any	<del>pollutant, you</del>	must provide the	results of a	t least one analysis fo	o <del>r that pollut</del>	ant. Complete	one table for each	outfall. Se	e the instructions for	addition	nal details and
If you requirements.														
1.		<del>2.</del>				3.				4.			6.	
POLLUTANT	MAR	K "X"			EF	FLUENT				UNITS		INTAK	E (option	<del>al)</del>
AND CAS NO.	a.	b.	a. Maximum Da	aily	b. Maximum 3	<del>0-Day</del>	c. Long-Terr	n Avg.	<del>d.</del>			a. Long-Tern	Avg	b.
			<del>Value</del>	·	Value (if avai	<del>lable)</del>	Value (if ava	<del>ilable)</del>	No. of	a.	b.	<del>Value</del>		No. of
<del>(if available)</del>	Believed	Believed	<del>(1)</del>	(2)	(1)	(2)	(1)	(2)	Analyses	Concentration	Mass	(1)	<del>(2)</del>	Analyses
	Present	Absent	Concentration	Mass	Concentration	Mass	Concentration	Mass				Concentration	Mass	·
a. Bromide														
(24959 67 9)														
(= :> = > )														
b. Chloride														ı
c. Chlorine,														
<del>Total</del>														
Residual														ı
d. <del>Color</del>														
e. <del>Fecal</del>														
Coliform														
Or E.coli														
f. Fluoride														
(16984-48-8)														
g. Hardness														
(as CaCO ₃ )														ı
h. Nitrate														
Nitrite (as N)														ı
i. Nitrogen,														
Total														
<del>Organic</del>														ı
(as N)														
j. <del>Oil and</del>														
Grease														
k. Phosphorous (as P), Total														
(as P), Total														
7723 14 0														
a. Radioactivity														
(1)Alpha,														
<del>Total</del>														
(2)Beta,														
<del>Total</del>														
(3)Radium														
<del>Total</del>														
(4) Radium,			_											
226, Total														<u>                                       </u>
(1) Strontium-														
90, Total														l l
(6 Uranium														
[ `														l
					•		•		•	•				

Part B - Continu	ued													
<del>1,</del>	2					3.				4.			<del>5.</del>	
POLLUTANT	MAR	K "X"				FLUENT				UNITS		INTAK	E (option	
And CAS NO.	a.	<del>b.</del>	<del>a.</del> <del>Maximum Dail</del>	y Value	b. Maximum 3 Value (if avai	<del>lable)</del>	e. Long-Terr Value (if ava	<del>n Avg.</del> <del>ilable)</del>	<del>d.</del> <del>No. of</del>	<del>a.</del>	<del>b.</del>	a. Long-Term Avg	. Value	<del>b.</del> <del>No. of</del>
<del>(if available)</del>	Believed Present	Believed Absent	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	Analyses	Concentration	Mass	(1) Concentration	(2) Mass	Analyses
m. Sulfate (as														
<del>SO4)</del>														
(14808 79														
b. <del>Sulfide</del>														
<del>(as S)</del>														
c. <del>Sulfite</del>														
<del>(as SO₄)</del> (14286-46-3)														
<del>(14286 46 3)</del>									1					
d. <del>Surfactants</del>														
e. <del>Aluminum,</del>														
<del>Total</del> <del>(7429-90)</del>														
f. <del>Barium, Total</del>														
<del>(7440-39-3)</del>														
g. Boron, Total														
<del>(7440-42-8)</del>														
h. Cobalt, Total (7440-48-4)														
i. <del>Iron, Total</del>														
<del>(7439-89-6)</del>														
j. <del>Magnesium</del> <del>Total</del>														
<del>Total</del> <del>(7439-96-4)</del>														
k. Molybdenu														
k. <del>Molybdenu</del> m Total														
<del>(7439-98-7)</del>														
l. Manganese,														
Total (7439-96-6)														
m. <del>Tin,</del> Total (7440														
n. <del>Titanium,</del>														
<del>Total</del>														
<del>(7440-32-6)</del>														

Part C – If you are for all such GC/MS fractions that apply to your industry and this outfall contains process wastewater, refer to Table C-2 in the instructions to determine which of the GC/MS fractions fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark this column (secondary mark "X" in the Believed Present column for each pollutant you know or have reason to believe is present. Mark "X" in the Believed Absent Required or Believed Present columns for any pollutant, you must provide the result of at least one analysis for that pollutant. Note that there pages) for each outfall. See instructions for additional details and requirements.

you must test for. Mark "X" in the **Testing Required** column industries, nonprocess wastewater outfalls, and non-required column for each pollutant you believe to be absent. If you mark are seven pages to this part; please review each carefully. Complete

		2. MARK "X"	or additional details	and require		3. LUENT				4. UNITS		INTAK	5. E (optiona	D.	
1. POLLUTANT And CAS NO.	a. Testing	a. Believed	b. Believed	a. Maximum Daily	y Value	b. Maximum 3 Value (if avai	0-Day	<del>c. Long-Term</del> <del>Value (if avail</del>	able)	d. No. of	a. Concentration	b. Mass	Long-Term Av		b. No. of Analyses
<del>(if available)</del>	Required	Present	Absent	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	Analyses			(1) Concentration	(2) Mass	
METALS, CYAN	HDE AND T	OTAL PHE	NOLS												
1M. Antimony															
<del>Total</del> <del>(7440-36-0)</del>															
2M. Arsenic,															
Total (7440-38-2)															
3M. Beryllium															
<del>Total</del>															
(7440-41-7)															
4M. Cadmium															
Total															
<del>(7440-43-9)</del> <del>5M. Chromium</del>															<b></b>
<del>5M. Chromium</del> <del>Total</del>															
<del>(7440-43-9)</del>															
6M. Copper															
Total															
(7550-50-8)															
7M. Lead															
<del>Total</del>															
(7439-92-1)															
8M. Mercury Total															
<del>10tai</del> <del>(7439-97-6)</del>															
9M. Nickel,					-										<del>                                     </del>
Total															1
(7440-02-0)															
10M. Selenium,															
<del>Total</del> <del>(7782-49-2)</del>															
11M. Silver,															
<del>Total</del>															
(7440-28-0)															

Part C - Continu	ıed														
1.		2. MARK "X"				EFF	3. LUENT				4. UNITS			5. Œ (optiona	ı <del>l)</del>
POLLUTANT And CAS NO.	a. Testing	a. Believed	b. Believed	a. Maximum Daily	<del>Value</del>	b. Maximum 3 Value (if avai	<del>0-Day</del> lable)	e. Long-Term Value (if avai	Avg. lable)	<del>d.</del> No. of	a. Concentration	b. Mass	<del>a.</del> <del>Long-Term Av</del>	<del>g Value</del>	b. No. of
<del>(if available)</del>	Required	Present	Absent	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	Analyses			(1) Concentration	(2) Mass	Analyses
METALS, CYA	NIDE AND T	OTAL PHE	NOLS (Con	tinued)		1	· L								-
12M. Thallium, Total (7440-28-0)															
13M. Zinc, Total (7440 66 6)															
14M. Cyanide, Total (57-12-5)															
15M. Phenols, Total															
DIOXIN		ı	l	l.		1	· L		l.	•		1			
2,3,7,8 Tetra- chlorodibenzo, P, Dioxin (1784-01-6) GC/MS FRACT	ION VOI A	THE COM	DOLINDS	DESCRIBE RE	SULTS:										
GU/NIS FRACT	I <del>UN - VULA</del>	TILE COM	POUNDS	I			I	1		T		1			T
1V. Acrolein (107-02-8)															
2V. Aerylonitrile (107-13-1)															
3V. Benzene (71-43-2) 5V. Bromoform															
<del>(75-25-2)</del>															
6V. Carbon Tetrachloride (56-23-5)															
7V. Chloro- benzene (108 90 7)															
8V. Chlorodibro- momethane (124 48 1)															

Part C - Continu	ıed														
1.		2. MARK "X"				EFF	3. LUENT				4. UNITS		INTAK	5. E (optiona	A <del>)</del>
POLLUTANT And CAS NO.	a. Testing	a. Believed	<del>b.</del> Believed	a. Maximum Daily	y Value	b. Maximum 3 Value (if avail	<del>0-Day</del> lable)	e. Long-Term Value (if avail	Avg. lable)	<del>d.</del> <del>No. of</del>	a. Concentration	b. Mass	a. Long-Term Av		b. No. of Analyses
<del>(if available)</del>	Required	Present	Absent	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	Analyses			(1) Concentration	(2) Mass	
9V. Chloroethane (74-00-3)															
10V. 2 Chloro ethylvinyl Ether (110 75 8)															
11V. Chloroform (67-66-3)															
12V. Dichloro- bromomethane (75-71-8)															
14V. 1,1 Dichloroethane															
(75-34-3) 15V. 1,2- Dichloroethane (107-06-2)															
16V. 1,1 Diehlorethylene (75 35 4) 17V. 1,2 Di															
<del>chloropropane</del> <del>(78-87-5)</del>															
18V. 1,3 Dichloropro- pylene (452- 75-6)															
19V. Ethyl- benzene (100 41 4)															
20V. Methyl Bromide (74-83-9)															

Part C - Continu	ed														
1.	1	2. MARK "X"				EFF	3. LUENT				4. UNITS		INTAK	5. E (optiona	<del>1)</del>
POLLUTANT And CAS NO.	a. Testing	a. Believed	b. Believed	a. Maximum Daily	. Value	b. Maximum 3 Value (if avail	0-Day	e. Long-Term Value (if avail	Avg. able)	d. No. of	a. Concentration	b. Mass	a. Long-Term Av		b. No. of Analyses
<del>(if available)</del>	Required	Present	Absent	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	Analyses			(1) Concentration	(2) Mass	
21V. Methyl				Concentration	111455	Concentration	171400	Concentration	171455				Concentration	171400	
Chloride															İ
(74 87 3)															İ
22V. Methylene Chloride (75 00 2)															
Chloride															İ
<del>(75-00-2)</del>															i
23V. 1,1,2,2															
Tetrachloro															i
ethane (79- 34-5)															i
<del>34-5)</del>															<u> </u>
24V.															i
Tetrachloro-															i
ethylene (127-18-4)															
25V. Toluene (108-88-3)															
26V. 1,2 Trans															
Dichloro -															i
<del>ethylene</del>															i
ethylene (156-60-5) 27V. 1,1,1 Tri															
27V. 1,1,1 Tri															1
<del>chloroethane</del>															
(71 55 6)															<b>—</b>
28V. 1,1,2 Tri- chloroethane															i l
<del>(79-00-5)</del>															
29V. Trichloro															
ethylene															i l
ethylene (79-01-6)															i l
30V. Vinvl															
30V. Vinyl Chloride															<u> </u>
<del>(75-01-4)</del>															
		•											l .		

Part C - Continu	ıed														
1.	ł	2. MARK "X"				EFF	3. LUENT				4 <del>.</del> UNITS		INTAK	5. <del>Æ (option</del> a	<del>1)</del>
POLLUTANT And CAS NO.	a. Testing	a. Believed	b. Believed	<del>a.</del> <del>Maximum Dail</del>	v Value	b. Maximum 3 Value (if avai	<del>0-Day</del> lable)	c. Long-Term Value (if avail	Avg.	<del>d.</del> No. of	a. Concentration	b. Mass	<del>a.</del> <del>Long-Term Av</del>	<del>g Value</del>	b. No. of Analyses
<del>(if available)</del>	Required	Present	Absent	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	Analyses			(1) Concentration	(2) Mass	
GC/MS FRACTI	ION – ACID	COMPOUN	DS												
1A. <del>2</del>															İ
Chloro-															İ
<del>phenol</del>															<b></b>
2A. 2,4															İ
Dichlor-															i
Orophenol (120-83-2)															i
<del>(120-83-2)</del>															ļ
3A.															ĺ
2,4 Dimeth															i
<del>ylphenol</del>															İ
<del>(105-67-9)</del>															<del> </del>
4A. 4,6 Dinitro															i
<del>o cresol</del> <del>(534-52-1)</del>															
5A. 2,4 Dinitro															
<del>phenol</del>															İ
<del>phenol</del> (51-28-5)															<u> </u>
6A. 2 Nitro															ĺ
<del>phenol</del>															i
<del>(88 75 5)</del>															<u> </u>
7A. 4 Nitro															i
<del>phenol</del> (100-02-7)															i
<del>(100-02-7)</del>															İ
8A. P chloro m															İ
<del>eresol</del> <del>(59-50-7)</del>															i
<del>(59-50-7)</del>															
9A.															İ
Pentachloro-															İ
<del>phenol</del>															İ
<del>(87-88-5)</del>															<del>                                     </del>
10A. Phenol															
(108-05-2)									<u></u>						<u> </u>
11A. 2,4,6 Tri															i
chlorophenol															ĺ
<del>(88-06-2)</del>															<u> </u>
GC/MS FRACTI	ION - BASE/	NEUTRAL	COMPOUN	IDS											
1B. Acena-															
<del>phthene</del>															ĺ
(83 32 9)									<u> </u>						

Part C - Continu	ıed														
1.		2. MARK "X"				EFF	3. LUENT				4 <del>.</del> UNITS		INTAK	5. E (optiona	ı <del>l)</del>
POLLUTANT And CAS NO.	a. <del>Testing</del>	a. Believed	<del>b.</del> Believed	a. Maximum Daily	y Value	b. Maximum 3 Value (if avai	<del>0-Day</del> lable)	<del>c. Long-Term</del> <del>Value (if avail</del>		<del>d.</del> No. of	a. Concentration	b. Mass	<del>a.</del> <del>Long-Term Av</del>	<del>g Value</del>	b. No. of Analyses
<del>(if available)</del>	Required	Present	Absent	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	Analyses			(1) Concentration	(2) Mass	
GC/MS FRACT	ION - BASE/	NEUTRAL	COMPOUN	DS (Continued)								ı			
2B. Acena- phtylene (208-96-8)															
3B. Anthra- cene (120-12-7)															
4 <del>B.</del> Benzidine (92-87-5)															
5B. Benzo(a) anthracene (56-55-3)															
6B. Benzo(a) pyrene (50-32-8)															
7B. 3,4-Benzo- fluoranthene (205-99-2)															
8B. Benzo(ghl) perylene (191-24-2)															
9B. Benzo(k) fluoranthene (207-08-9)															
10B. Bis(2- chlor- oethoxy)- methane															
(111-91-1) 11B. Bis															
<del>(2 chlor- oisopropyl)-</del> <del>Ether</del>															
12B. Bis (2 ethyl- hexyl) phthalate															
<del>(117-81-7)</del>															

Part C - Continu	ed														
		2.				IN NO.	3.				4 <del>.</del>		TATO A T	5 <del>.</del>	D
1. POLLUTANT	f	MARK "X"				EFF	LUENT				UNITS	I	INTAK a.	E (optiona	<del>b.</del>
And CAS NO.	a. Testing	a. Believed	<del>b.</del> Believed	<del>a.</del> Maximum Daily	. Voluo	b. Maximum 3 Value (if avail		<del>c. Long-Term</del> <del>Value (if avail</del>	Avg.	<del>d.</del> No. of	a. Concentration	<del>b.</del> Mass	Long-Term Av	<del>g Value</del>	No. of Analyses
<del>(if available)</del>	Required	Present	Absent	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	Analyses	Concentration	171455	(1) Concentration	(2) Mass	Amaryses
GC/MS FRACTI	ON - BASE/	NEUTRAL	COMPOUN	DS (Continued)	1VIUSS	Concentration	TVIUSS	<del>Concentration</del>	IVIUSS				<del>Concentration</del>	iviass	-
13B. 4 Bromo	DINOLI.	LUTRIL	COMITOCI	DS (Continueu)											
<del>phenyl</del>															1
Phenyl ether (101 55 3)															1
<del>(101 55 3)</del>															
14B. Butyl															1
benzyl															1
phthalate (85-68-7)															1
15B. 2 Chloro															-
nanhthalana															1
naphthalene (7005-72-3)															1
16B. 4 Chloro															
nhenyl															1
phenyl ether (7005-72-3)															
(7005 72 3)															
<del>17B. Chrysene</del> <del>(218-01-9)</del>															
18B.															
Dibenzo (a,h)															1
Anthracene															
(53-70-3) 19B. 1,2															
Dichloro															1
<del>benzene</del>															
<del>(95-50-1)</del>															
20B. 1,3															
Dichloro-															1
Benzene															
(541-73-1)															
21B. 1,4															1
Dichloro-															
<del>benzene</del> (106 46 7)															1
<del>(105 45 7)</del> <del>22B. 3,3</del>									-						
Dichloro															
<del>benzidene</del>															
<del>(91-94-1)</del>															
23B. Diethyl															
Phthalate															1
<del>(84-66-2)</del>									<u> </u>						<u>                                      </u>

Part C - Continu	ied														
		2.					3.				4.			5.	
1.	- P	MARK "X"				EFF	LUENT				UNITS	ı		E (optiona	
POLLUTANT And CAS NO.						1. M	0 D	T TD	<b>A</b> .			,	<del>a.</del>	. 37.1	b.
Alla CAS NO.	<del>a.</del> <del>Testing</del>	<del>a.</del> Believed	<del>b.</del> Believed	a. <del>Maximum Dail</del> y	. Value	b. Maximum 3 Value (if avail		<del>c. Long-Term</del> <del>Value (if avail</del>	<del>-Avg.</del> labla)	<del>d.</del> No. of	<del>a.</del> Concentration	b. Mass	Long-Term Av	<del>g. varue</del>	No. of Analyses
(if available)	Required	Present	Absent	<del>(1)</del>	(2)	(1)	<del>(2)</del>	(1)	<del>(2)</del>	Analyses	Concentration	111433	(1)	<del>(2)</del>	rinaryses
	-			Concentration	Mass	Concentration	Mass	Concentration	Mass				Concentration	Mass	
GC/MS FRACTI	ON - BASE/	NEUTRAL	COMPOUN	DS (Continued)	•										
24B. Dimethyl															
Phthalate															
<del>(131-11-3)</del>															
25B. Di N															
butyl Phthalate (84-74-2)															
<del>26B.</del>															
2,4 Dinitro															
toluene															
(121-14-2) 27B.															
2,6 Dinitro															
toluene															
<del>(606-20-2)</del>															
28B. Di-n-octyl															
Phthalate															
(117-84-0)															
<del>29B. 1,2-</del>															
diphenyl- hydrazine (as															
azonbenzene)															
<del>(122-66-7)</del>															
30B.															
Fluoranthene															
(208 44 0)															
31B. Fluorene															
<del>(86 73 7)</del> <del>32B.</del>															
Hexachloro															
benzene															
<del>(118 71 1)</del>															
33B.															
Hexachloro-															
butadiene															
<del>(87-68-3)</del>							ļ		ļ						
34B.															
Hexachloro- cyclopenta-															
<del>cyciopenta-</del> <del>diene</del>															
<del>(77-47-4)</del>															
(,, 1, 1)					1	l .	I		I			1		1	

Part C - Continu	ied														
1.	1	2. MARK "X"				EFF	3. LUENT				4 <del>.</del> UNITS		INTAK	5. <del>Æ (option</del> a	<del>II)</del>
POLLUTANT And CAS NO.	a. Testing	a. Believed	<del>b.</del> Believed	<del>a.</del> <del>Maximum Dail</del>	v Value	b. Maximum 3 Value (if avai	<del>0-Day</del> lable)	e. Long-Term Value (if avail	-Avg. lable)	<del>d.</del> No. of	a. Concentration	<del>b.</del> Mass	<del>a.</del> Long-Term Av	<del>g Value</del>	b. No. of Analyses
(if available)	Required	Present	Absent	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	Analyses			(1) Concentration	(2) Mass	
GC/MS FRACTI	ON - BASE/	NEUTRAL	COMPOUN	DS (Continued)											
35B. Hexachlo															1
roethane															
<del>(67-72-1)</del>															-
36B. Indneo															
(1,2,3 oc) Pyrene (193															
20.5)															
<del>39-5)</del> <del>37B.</del>															<del>                                     </del>
Isonhorone															
Isophorone (78-59-1)															
38B.															
Napthalene (91-20-3)															
39B.															
Nitro-															
<del>benzene</del>															
<del>(98-95-3)</del>															
40B. N															
Nitroso-															
dimethyl amine (62-75-9)															
41B. N															
nitrosodi n															
<del>propylamine</del> (621-64-7)															
(621-64-7)															
42B. N-nitro- sodiphenyl															
amine (86															
<del>30-6)</del>															1
43B. Phenan															
threne						1									1
<del>(85-01-8)</del>															1
44B. Pyrene (129 00 0)						1									1
<del>(129 00 0)</del>															
45B. 1,2,4						1									1
Tri chloro															1
benzene															1
(120-82-1)						<u> </u>	<u> </u>		<u> </u>					l	<u> </u>

Part C - Continu	ıed														
4	,	2. MARK "X"				Inini	3. LUENT				4 <del>.</del> UNITS		INTO A IZ	5. E (optiona	.D
<del>1.</del> POLLUTANT	f	VIAKK "X"				<del>EFF</del>	LUENI				UNIIS		a.	<del>.E (optiona</del>	<del>н)</del> 
And CAS NO.	<del>a.</del> Testing	a. Believed	b. Believed	<del>a.</del> <del>Maximum Dail</del> y	v Value	b. Maximum 3 Value (if avail	<del>0-Day</del> lable)	c. Long-Term Value (if avail	Avg. lable)	<del>d.</del> No. of	a. Concentration	<del>b.</del> Mass	Long-Term Av	g <del>. Value</del>	No. of Analyses
<del>(if available)</del>	Required	Present	Absent	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	Analyses			(1) Concentration	(2) Mass	
GC/MS FRACTI	ON - PESTI	CIDES													
<del>1P. Aldrin</del> ( <del>309-00-2)</del>															
<del>2P. α BHC</del> (319-84-6)															
<del>3P. β BHC</del> <del>(58-89-9)</del>															
4 <del>P.</del> <del>gamma-BHC</del> (58-89-9)															
5P. 8 BHC (319 86 8)															
6P. Chlordane (57-74-9)															
7P. 4,4'-DDT (50-29-3)															
8P. 4,4' DDE (72 55 9)															
9P. 4,4' DDD (72 54 8)															
10P. Dieldrin (60-57-1)															
11P. α- Endosulfan (115-29-7)															
12P. β- Endosulfan (115-29-7)															
13P. Endosulfan Sulfate (1031-07-8)															
14P. Endrin (72-20-8)															

Part C - Continu	ıed														
		2.					3.				4.			5.	
1.	]	MARK "X"				EFF	LUENT				UNITS		INTAK	E (optiona	<del>l)</del>
POLLUTANT													<del>a.</del>		<del>b.</del>
And CAS NO.	a.	a.	<del>b.</del>	a.		b. Maximum 3	0-Day	e. Long-Term	Avg.	<del>d.</del>	a.	<del>b.</del>	Long-Term Av	<del>g Value</del>	No. of
	Testing	Believed	Believed	Maximum Daily	<del>Value</del>	Value (if avai		Value (if avai	l <del>able)</del>	No. of	Concentration	Mass			Analyses
<del>(if available)</del>	Required	Present	Absent	<del>(1)</del>	<del>(2)</del>	(1)	<del>(2)</del>	<del>(1)</del>	<del>(2)</del>	Analyses			<del>(1)</del>	<del>(2)</del>	
				Concentration	Mass	Concentration	Mass	Concentration	Mass				Concentration	Mass	
GC/MS FRACT	<u>ION – PESTI</u>	CIDES	1		1	1		1		1		ı	1	ľ	_
15P. Endrin															
Aldehyde															
(7421 93 4)															
160 11															
<del>16P Heptachlor</del> <del>(76-44-8)</del>															
17D Hantaglar															
17P. Heptaclor Epoxide (1024 57 3)															
(1024-57-3)															
(102+ 31 3)															
18P. PCB 1242															
<del>(53469 21 9)</del>															
( )															
19P. PCB 1254															
(11097-69-1)															
20P. PCB-1221															
(11104 28 2)															
21P. PCB 1232															
(11141-16-5)															<u> </u>
22P. PCB 1248															
(12672 29 6)															
(120/2 29 0)		<b>-</b>													-
23P. PCB-1260															
<del>(11096-82-5)</del>															
(11070-02-3)															
24P. PCB 1016															
(12674 11 2)						1									
( = = : : = = <b>=</b> )															
25P. Toxaphene															
<del>(8001-35-2)</del>															
` ′					•					•				•	

# KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM FORM C -- INSTRUCTIONS

Listed below are explanations of select Form C questions. If further information is needed concerning any questions, please contact the Division of Water, at (502) 564-3410.

#### I. OUTFALL LOCATION

Use the map you provided for Item III of Form 1 to determine the latitude and longitude of each of your outfalls and the name of the receiving water.

#### II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

- A. The line drawing should show generally the route taken by water in your facility from intake to discharge. Show all operations contributing wastewater, including process and production areas, sanitary flows, cooling water, and storm water runoff. Group similar operations into a single unit and label to correspond to the more detailed listing in Item II.B. The water balance should show average flows. Show all significant losses of water to products, atmosphere, and discharge. Use actual measurements whenever available. Otherwise, use your best estimate.
- B. List all sources of wastewater to each outfall. Operations may be described in general terms (for example, "dye making reactor" or "distillation tower"). Estimate the flow contributed by each source if no data are available. For storm water, use any reasonable measure of duration, volume, or frequency. For each treatment unit, indicate its size, flow rate, and retention time; and describe the ultimate disposal of any solid or liquid wastes not discharged. Treatment units should be listed in order. Select the proper code from Table C 1 to fill in the treatment code for each treatment unit. Insert "XX" for the treatment code if no code corresponds to a treatment unit you have listed.

If the permit application is for a privately owned treatment works, you must also identify all of your contributors in an attached listing.

C. A discharge is intermittent unless it occurs without interruption during the operating hours of the facility, except for shutdowns for maintenance, process changes, or other similar activities. A discharge is seasonal if it occurs during certain parts of the year. Fill in every applicable column in this item for each source of intermittent or seasonal discharge. Base your answers on actual data whenever available, otherwise, provide your best estimate. Report the highest daily for flow rate and total volume in the "Maximum Daily" columns. Report the average of all daily values measured during days when discharge occurred within the last year in the "Long Term Average" columns.

#### III. PRODUCTION

- D. All effluent guidelines promulgated by EPA appear in the Federal Register and are published annually in 40 CFR Subchapter N. A guideline applies to you if you have any operations contributing process wastewater in any subcategory covered by a BPT, BCT, or BAT guideline. If you are unsure whether you are covered by a promulgated effluent guideline, check with the Department for Environmental Protection, Division of Water. You must check "yes" if an applicable effluent guideline has been promulgated, even if the guideline limitations are being contested in court. If you believe that promulgated effluent guideline has been remanded for reconsideration by a court and does not apply to your operation, you may check "no."
- E. An effluent guideline is expressed in terms of production (or other measure of operation) if the limitation is expressed as mass of pollutant per operational parameter, for example, "pounds of BOD per cubic foot of logs from which bark is removed," or "pounds of TSS per megawatt hour of electrical energy consumed by smelting furnace." An example of a guideline not expressed in terms of a measure of operation is one that limits the concentration of pollutants.
- F. This item must be completed only if you check "yes" to Item III.B. The production information requested here is necessary to apply effluent guidelines to your facility and you may not claim it as confidential. However, you do not have to indicate how the reported information was calculated.

Report quantities in the units of measurements used in the applicable effluent guidelines. The figures provided must be a measure of actual operation over a one month period, such as the production for the highest month during the last twelve months, or the monthly average production for the highest year of the last five years, or other reasonable measure of actual operation. But these figures may not be based on design capacity or on predictions of future increases in operation.

If you have two or more substantially identical outfalls, request permission from the Division of Water to sample and analyze only one outfall and submit the results of the analysis for other substantially identical outfalls. If your request is granted, identify on a separate sheet attached to the application form the outfall tested, and describe why the outfalls not tested are substantially identical to the tested outfall.

#### IV. IMPROVEMENTS

A. If you check "yes" to this question, complete all parts of the chart or attach a copy of any previous submission you have made to the Department for Environmental Protection containing the same information.

#### I. INTAKE AND EFFLUENT CHARACTERISTICS

This item requires you to collect and report data on the pollutants discharged for each of your outfalls. Each part of this item addresses a different set of pollutants and must be completed in accordance with the specific instructions for that part. The following general instructions apply to the entire item.

#### **GENERAL INSTRUCTIONS**

In the "Mark X" columns of Parts B and C mark only one box per pollutant. Part D requires you to list any of a group of pollutants which you believe to be present, with a brief explanation of why you believe it to be present. See specific instruction on the form and below for Parts A through D.

Base your determination that a pollutant is present in or absent from your discharge on your knowledge of your raw materials, maintenance chemicals, intermediate and final products and byproducts, and any previous analyses known to you of your effluent or of any similar effluent. (For example, if you manufacture pesticides, you should expect those pesticides to be present in contaminated storm water runoff.) If you would expect a pollutant to be present solely as a result of its presence in your intake water, you must mark "Believed Present" but "X" in that "Intake" column.

#### REPORTING

All levels must be reported as concentration and as total mass. Use the following abbreviations in the columns headed "Units" (column 3, Part A, and column 4, Parts B and C).

CON	ICENTRATIONS	M/	<del>\SS</del>
<del>ppm</del>	parts per million	<del>lbs.</del>	Pounds
mg/l	milligrams per liter	ton	Tons (english tons)
<del>ppb</del>	parts per billion	mg	Milligrams
μg/l	micrograms per liter	<del>g</del>	Grams
		<del>kg</del>	Kilograms
		Ŧ	Tonnes (metric tons)
		MGD	Million Gallons Per Day

If you measure only one daily value, complete only the "Maximum Daily Values" columns and insert "1" into the "Number of Analyses" columns (columns 2-a and 2-d, Part A, and columns 3-a and 3-d, Parts B and C).

For composite samples, the daily value is the total mass or average concentration found in a composite sample taken over the operating hours of the facility during a 24 hour period. For grab samples, the daily value is the arithmetic or flow weighted total mass or average concentration found in a series of at least four grab samples taken over the operating hours of the facility during a 24 hour period.

If you measure more than one daily value for a pollutant, determine the average of all values within the last year and report the concentration and mass under the "Long-Term Average Values" columns (column 2-c, Part A, and column 3-c, Parts B and C). Also report the total number of daily values under the "Number of Analyses" columns (column 2-d, Part A, and column 3-d, Parts B and C). Determine the average of all daily values taken during each calendar month, and report the highest average under the "Maximum 30 Day Values" columns (2 b, Part A, and column 3 b, Parts B and C).

#### **SAMPLING**

The collection of the samples for the reported analyses should be supervised by a person experienced in performing sampling of industrial wastewater. You may contact the Department for Environmental Protection or appropriate regional office for detailed guidance on sampling techniques and for answers to specific questions. Any specific requirements contained in the applicable analytical methods should be followed for sample containers, sample preservation, holding times, the collection of duplicate samples, etc. The time when you sample should be representative of your normal operation, to the extent feasible, with all processes which contribute wastewater in normal operation, and with your treatment system operating properly with no system upsets.

#### **ANALYSIS**

Use test methods promulgated in 40 CFR Part 136; however, if none have been promulgated for a particular pollutant, use any suitable methods for measuring the level of the pollutant in your discharge provided that you submit a description of the methods or a reference to a published method. Your description should include the sample holding times, preservation techniques, and the quality control measures used.

#### REPORTING OF INTAKE DATA

You are not required to report data under the "Intake" columns unless you wish to demonstrate your eligibility for a "net" effluent limitation for one or more pollutants, that is, effluent limitations adjusted by subtracting the average level of the pollutant(s) present in your intake water. 401 KAR 5:065, Section 3(7), allows net limitations only in certain circumstances. To demonstrate your eligibility, report the average of the results of analysis on your intake water in the "Intake" columns (if your water is treated before use, test the water after it is treated), and attach a separate sheet containing the following for each pollutant:

- 1. A statement that the intake and discharge are from the same water body (Otherwise, you are not eligible for net limitations);
- 2. A statement of the extent to which the level of the pollutant is reduced by treatment of your wastewater (Your limitations will be adjusted only to the extent that the pollutant is not removed);
- 3. When applicable (for example, when the pollutant represents a class of compounds), a demonstration of the extent to which the pollutants in the intake vary physically, chemically, or biologically from the pollutants contained in your discharge. (Your limitations will be adjusted only to the extent that the intake pollutants do not vary from the discharged pollutants.)

#### **SPECIFIC INSTRUCTIONS**

- A. This part must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff. However, at your request, the Division of Water may waive the requirements to test for one or more of these pollutants upon a determination that testing for the pollutant(s) is not appropriate for your effluents.
  - Use grab samples for pH and temperature. Use composite samples for all pollutants in this part. See discussion in General Instructions to Item V for definitions of the columns in Part A. The "Long Term Average Values" column (column 2 c) and "Maximum 30 Day Values" column (column 2 b) are not compulsory but should be filled out if data are available.
- B. This part must be completed by all applicants for all outfalls including those containing only noncontact cooling water or storm runoff.
  - Use composite samples for all pollutants you analyze in this part, except use grab samples for residual chlorine, oil and grease, fecal coliform, and E.coli. The "Long Term Average Values" column (column 3 b) are not compulsory but should be filled out if data are available.
- C. Table C 2 lists the 34 "primary" industry categories in the left hand column. For each outfall, if any of your processes which contribute wastewater falls into one of those categories, you must mark "X" in "Testing Required" column (column 2 a) and test for: (A) all of the toxic metals, cyanide, and total phenols; and (B) the organic toxic pollutants contained in the gas chromatography/mass spectrometry (GC/MS) fractions indicated in Table C 2 as applicable to your category, unless you qualify as a small business (see below). The organic toxic pollutants are listed by GC/MS fractions on pages V-4 through V-10 in Part V C. For example, the Organic Chemical industry has an "X" in all four fractions; therefore, applicants in this category must test for all organic toxic pollutants in Part V C. If you are applying for a permit for a

privately owned treatment works, determine your testing contributors. The industry category you use for testing requirements is not used to categorize you for any other purpose.

For all other cases (secondary industries, non process wastewater outfalls, and non required GC/MS fractions), you must mark "X" in either the "Believed Present" column (column 2 b) or the "Believed Absent" column (column 2 c) for each pollutant, and test for those you believe present (those marked "X" in column 2 b). If you qualify as a small business (see below) you are exempt from testing for the organic toxic pollutants listed on page V 4 through V 10 in Part C. For pollutants in intake water, see discussion in General Instructions to this item. The "Long Term Average Values" column (column 3 c) and "Maximum 30 Day Values" column (column 3 b) are not compulsory but should be filled out if data are available.

Use grab samples for total phenols and cyanide. Use composite samples for all other pollutants in this

part. Mark "Testing Required" for dioxin if you use or manufacture one of the following compounds:

- A. 2,4,5 trichlorophenoxy acetic acid (2,4,5 T);
- B. 2 (2,4,5 trichlorophenoxy) propanoic acid (Silvex, 2,4,5, TP);
- C. 2 (2,4,5 trichlorophenoxy) ethyl 2,2 dichloropropionate (Erbon);
- D. 0, 0 dimethyl 0 (2,4,5 trichlorophenyl) phosphorothioate (Ronnel);
- E. 2,4,5 trichlorophenol (TCP); or
- F. Hexachlorophene (HCP)

If you mark "Testing Required" or "Believed Present" you must perform a screening analysis for dioxins, using gas chromotography with an electron capture detector. A TCDD standard for quantification is not required. Describe the results of this analysis in the space provided, for example, "no measurable baseline deflection at the retention time of TCDD" or "a measurable peak within the tolerances of the retention time of TCDD." You may be required to perform a quantitative analysis if you report a positive result.

The Engineering and Analysis Division of EPA has collected and analyzed samples from some facilities for the pollutants listed in Part C in the course of its BAT guidelines development program. If your effluents were sampled and analyzed as part of this program in the last three years, you may use this data to answer Part C. This may be done provided that no process change or change in raw materials, process or operating practices has occurred since the samples were taken which would make the analyses unrepresentative of your current discharge.

#### **Small Business Exemption**

If you qualify as a "small business," under 401 KAR 5:060, Section 2(8) you are exempt from the reporting requirements for the organic toxic pollutants listed on pages 9 through 18 in Part C. If your facility is a coal mine with a probable total annual production of less than 100,000 tons, you may submit past production data or estimated future production (such as a schedule of estimated total production under 30 CFR Section 795.14(e)) instead of conducting analyses for the organic toxic pollutants. If your facility is not a coal mine, and if your gross total annual sales for the most recent three years average less than \$100,000 per year (in second quarter 1980 dollars), you may submit sales data for those years instead of conducting analyses for the organic toxic pollutants.

The production or sales data must be for the facility that is the source of the discharge. The data should not be limited to production or sales for the process or processes that contribute to the discharge, unless those are the only processes of your facility. For sales data, in situations involving intra corporate transfers of goods and services, the transfer price per unit should approximate market prices for those goods and services as closely as possible. Sales figures for years after 1980 should be indexed to the second quarter of 1980 by using the gross national product prices deflator (second quarter of 1980 = 100). This index is available in "National Income and Product Accounts of the United States" (U.S. Department of Commerce, Bureau of Economic Analysis).

D. List any pollutants in Table C 3 that you believe to be present and explain why you believe them to be present. No analysis is required, but if you have analytical data, you must report it also.

NOTE: Under 40 CFR 117.12(a)(2), certain discharges of hazardous substances (listed in Table C 3 of these instructions) may be exempted from the requirements of Section 311 of the Clean Water Act (33 USC Section 1321), which establishes reporting requirements, civil penalties, and liability for cleanup costs for spills of oil and hazardous substances. A discharge of a particular substance may be exempted if the origin, source, and amount of the discharged substance are identified in the KPDES permit application or in the permit, if the permit contains a requirement for treatment of the discharge, and if the treatment is in place. To apply for an exclusion of the discharge of any hazardous substance from the requirement of Section 311, attach additional sheets of paper to your form, setting forth the following information:

- G. the substance and the amount of each substance which may be discharged;
- H. the origin and source of the discharge of the substance;
- I. the treatment which is provided or to be provided for the discharge by:
  - 1. an on site treatment system separate from any treatment system treating your normal discharge;
  - 2. a treatment system designed to treat your normal discharge and which is additionally capable of treating the amount of the substance identified under paragraph 1 above; or
  - 3. any combination of the above.

See 40 CFR Section 117.12(a)(2) and (c), published on August 29, 1979, or contact the Division of Water for further information on exclusions from Section 311.

#### VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

- D. You may not claim this information as confidential. However, you do not have to distinguish between use of production of the pollutants or list the amounts. Under KPDES regulations, your permit will contain limits to control all pollutants you report in answer to this question, as well as pollutants reported in Item V and VI.B at levels exceeding the technology based limits appropriate to your facility. Your permit will also require you to report to the Department for Environmental Protection if you begin or expect to begin to use or manufacture any toxic pollutant as an immediate or final product or byproduct which you did not report here. Your permit may be modified at that time if necessary to control that pollutant.
- E. Consider only those variations which may result in the concentrations of pollutants in effluents which exceed twice the maximum values you reported in Item V. These variations may be part of your routing operations, or part of your regular cleaning cycles.

Under KPDES regulations, your permit will contain limits to control any pollutant that you report in this item at levels exceeding the technology based limits appropriate to your facility. Your permit will also require you to report to the Department for Environmental Protection if you know or have reason to believe that any toxic pollutant two times the maximum values reported in Item V C or in this item. Your permit may be modified at that time if necessary to control the pollutant.

Do not consider variations that are the result of bypasses or upsets. Increased levels of pollutants that are discharged as a result of bypasses or upsets are regulated separately under KPDES regulations.

F. Variation exemptions to be described here include:

Changes in raw or intermediate materials

Changes in process equipment or materials;

Changes in product lines;

Significant chemical reactions among pollutants in waste streams; and

Significant variation in removal efficiencies of pollution control equipment.

You may indicate other types of variations as well, except those that are the result of bypasses or upsets. You may be required to further investigate or document variations you report here.

Base your prediction on expected levels of these pollutants upon your knowledge of your processes, raw materials, past and projected product ranges, etc., or upon any testing of your effluent which indicates the range of variability that can be expected over the next five years.

EXAMPLE: Outfall 001 discharges water used to clean six 500 gallon tanks. These tanks are used for formulation of dispersions of synthetic resins in water (adhesives). Use of toxic pollutants which can be expected in the next 5 years is:

- 4. copper acetate inhibitor, 1/2 lb. per tank;
- 5. dibutyl phthalate, 50 lbs. per tank;
- 6. toluene, 5 lbs. per tank; and
- 7. antimony oxide, 1 lb. per tank.

Based on normal cleaning, an average of 1% and a maximum of 3% of the contents of each tank is collected and discharged once every two weeks in the 150 gallons of water used for cleaning. Treatment (pH adjustment, flocculation, filtration) removes 85% of metals and 50% of organic compounds.

### **IX. CERTIFICATION**

The certification is to be signed as follows:

Corporation: by a principal officer of at least the level of vice president.

Partnership or sole proprietorship: by a general partner or the proprietor, respectively.

Municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official.

# TABLE C-1 CODES FOR TREATMENT UNITS (For use with Form C, Item II, Part B)

#### PHYSICAL TREATMENT PROCESSES

Ammonia Stripping	1-M	Grit Removal
Dialysis	1-N	Microstraining
Diatomaceous Earth Filtration	1-0	Mixing
Distillation	1-P	Moving Bed Filters
Electrodialysis	1-Q	Multimedia Filtration
Evaporation	1-R	Rapid Sand Filtration
Flocculation	1-S	Reverse Osmosis (Hyperfiltration)
Flotation	1-T	Screening
Foam Fractionation	1-U	Sedimentation (Settling)
Freezing	1-V	Slow Sand Filtration
Gas-Phase Separation	1-W	Solvent Extraction
Grinding (Comminutors)	1-X	Sorption
CHEMICAL TREATMENT	PROCESSES	
Carbon Adsorption	2-G	Disinfection (Ozone)
Chemical Oxidation	2-H	Disinfection (Other)
Chemical Precipitation	2-I	Electrochemical Treatment
Coagulation	2-J	Ion Exchange
Dechlorination	2-K	Neutralization
Disinfection (Chlorine)	2-L	Reduction
BIOLOGICAL TREATMEN	T-PROCESSES	
Activated Sludge	3-E	Pre-Aeration
Aerated Lagoons	3-F	Spray Irrigation/Land Application
Anaerobic Treatment	<del>3-G</del>	Stabilization Ponds
Nitrification-Denitrification	3-H	Trickling Filtration
OTHER PROCES	SSES	
OTHER PROCES  Discharge to Surface Water		Reuse/Recycle of Treated Effluent
V	4-C	Reuse/Recycle of Treated Effluent Underground Injection
Discharge to Surface Water  Ocean Discharge Through Outfall	4-C4-D	Underground Injection
Discharge to Surface Water Ocean Discharge Through Outfall SLUDGE TREATMENT AND DISI	4-C4-D	Underground Injection ES
Discharge to Surface Water Ocean Discharge Through Outfall SLUDGE TREATMENT AND DISK Aerobic Digestion	4-C	Underground Injection  ES  Heat Drying
Discharge to Surface Water Ocean Discharge Through Outfall SLUDGE TREATMENT AND DISC Aerobic Digestion Anaerobic Digestion	4-C	Underground Injection  ES  Heat Drying Heat Treatment
Discharge to Surface Water Ocean Discharge Through Outfall SLUDGE TREATMENT AND DISK Aerobic Digestion	4-C	Underground Injection  ES  Heat Drying  Heat Treatment Incineration
Discharge to Surface Water Ocean Discharge Through Outfall  SLUDGE TREATMENT AND DIST Aerobic Digestion Anaerobic Digestion Belt Filtration Centrifugation	4-C	Underground Injection  ES  Heat Drying  Heat Treatment Incineration
Discharge to Surface Water Ocean Discharge Through Outfall  SLUDGE TREATMENT AND DIST Aerobic Digestion Anaerobic Digestion Belt Filtration Centrifugation Chemical Conditioning	4-C	Underground Injection  ES  Heat Drying  Heat Treatment Incineration Land Application Landfill
Discharge to Surface Water Ocean Discharge Through Outfall  SLUDGE TREATMENT AND DIST Aerobic Digestion Anaerobic Digestion Belt Filtration Centrifugation Chemical Conditioning Chlorine Treatment	4-C	ES Heat Drying Heat Treatment Incineration Land Application Landfill Pressure Filtration
Discharge to Surface Water Ocean Discharge Through Outfall  SLUDGE TREATMENT AND DIST Aerobic Digestion Anaerobic Digestion Belt Filtration Centrifugation Chemical Conditioning Chlorine Treatment Composting	4 C	ES Heat Drying Heat Treatment Incineration Land Application Landfill Pressure Filtration Pyrolysis
Discharge to Surface Water Ocean Discharge Through Outfall  SLUDGE TREATMENT AND DIST Aerobic Digestion Anaerobic Digestion Belt Filtration Centrifugation Chemical Conditioning Chlorine Treatment Composting Drying Beds	4 C	ES Heat Drying Heat Treatment Incineration Land Application Landfill Pressure Filtration Pyrolysis Sludge Lagoons
Discharge to Surface Water Ocean Discharge Through Outfall  SLUDGE TREATMENT AND DIST Aerobic Digestion Anaerobic Digestion Belt Filtration Centrifugation Chemical Conditioning Chlorine Treatment Composting Drying Beds Elutriation	4-C	Underground Injection  ES  Heat Drying Heat Treatment Incineration Land Application Landfill Pressure Filtration Pyrolysis Sludge Lagoons Vacuum Filtration
Discharge to Surface Water Ocean Discharge Through Outfall  SLUDGE TREATMENT AND DIST Aerobic Digestion Anaerobic Digestion Belt Filtration Centrifugation Chemical Conditioning Chlorine Treatment Composting Drying Beds Elutriation Flotation Thickening	4 C	Underground Injection  ES  Heat Drying Heat Treatment Incineration Land Application Landfill Pressure Filtration Pyrolysis Sludge Lagoons Vacuum Filtration Vibration
Discharge to Surface Water Ocean Discharge Through Outfall  SLUDGE TREATMENT AND DIST Aerobic Digestion Anaerobic Digestion Belt Filtration Centrifugation Chemical Conditioning Chlorine Treatment Composting Drying Beds Elutriation	4-C	Underground Injection  ES  Heat Drying Heat Treatment Incineration Land Application Landfill Pressure Filtration Pyrolysis Sludge Lagoons Vacuum Filtration Vibration
	Diatomaceous Earth Filtration  Distillation  Electrodialysis  Evaporation  Floculation  Flotation  Foam Fractionation  Freezing  Gas-Phase Separation  Grinding (Comminutors)  CHEMICAL TREATMENT  Carbon Adsorption  Chemical Oxidation  Chemical Precipitation  Coagulation  Dechlorination  Disinfection (Chlorine)  BIOLOGICAL TREATMENT	Diatomaceous Earth Filtration

## TABLE C-2

# TESTING REQUIREMENTS FOR ORGANIC TOXIC POLLUTANTS BY INDUSTRY CATEGORY* (For use with Form C, Item V, Part C)

GC/MS FRACTION¹

INDUSTRY CATEGORY	Volatile	Acid	Base/Neutral Pesticid
Adhesives and sealants	Х	X	- X
Aluminum forming	X	X	- X
Auto and other laundries	X	X	<u> </u>
Battery manufacturing	X	<del>-</del>	X -
Coal mining	-*	<u>-*</u>	_* <u>-</u> *
Coil coating	X	X	<u> </u>
Copper forming	x	X	- X
Electric and electronic compounds	Х	X	<u> </u>
Electroplating	X	X	- X
Explosives manufacturing	<del></del>	X	- X
<u>Foundries</u>	X	X	X
Gum and wood chemicals	X	X	<u>x</u> -
norganic chemicals manufacturing	X	x	<u>x</u> -
ron and steel manufacturing	Х	X	<u>x</u> -
eather tanning and finishing	Х	X	X -*
Mechanical products manufacturing	X	X	X
Nonferrous metals manufacturing	X	X	<u> </u>
Ore mining	X	x	<u> </u>
Organic chemicals manufacturing	Х	X	<u> </u>
Paint and ink formulation		X	X -*
Pesticides	X	X	<u> </u>
Petroleum refining	X	_	
Pharmaceutical preparation	X	x	<u>x</u>
notographic equipment and supplies		x	X -*
Pastic and synthetic materials manufacturing		x	<u> </u>
Plastic processing	X		
Porcelain enameling	_*	. <del>-</del> *	_**
Printing and publishing		v	v v
Pulp and paperboard mills		v	v v
Rubber Processing	v_	v_	x - x
Soap and detergent manufacturing	v	v	v
Steam electric power plants		v	v
Fextile mills	Λ		
Fimber products processing	X	Х	X X

*See note at conclusion of 40 CFR Part 122, Appendix D (1983) for explanation of effect of suspensions on testing requirements for primary industry categories. See Note 1 at 46 FR 2045, Jan. 8, 1981; Note 2 at 46 FR22585, Apr. 20, 1981; and Note 3 at FR 35090, July 1, 1981.

1	The pollutants	in aach	fraction	ara listad	in itam	VC
	The pondums	III Cacii	naction	are noted	III ItCIII	<del>v -c.</del>

x = Testing required.

= Testing not required.

# TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES REQUIRED TO BE IDENTIFIED BY APPLICANTS IF EXPECTED TO BE PRESENT

(For use with Form C, Item V, Part D)

#### TOXIC POLLUTANT

Asbestos

			HAZARDOUS SUBSTANCE	S	
1.	Acetaldehyde	<del>35.</del>	Ammonium thiocyanate	<del>69.</del>	Calcium chromate
2.	Acetic Acid	<del>36.</del>	Ammonium thiosulfate	<del>70.</del>	Calcium cyanide
<del>3.</del>	Acetic anhydride	<del>37.</del>	Amyl acetate	<del>71.</del>	Calcium dodecylbenzenesulfonate
4.	Acetone cyanohydrin	<del>38.</del>	Aniline	<del>72.</del>	Calcium hypochlorite
<del>5.</del>	Acetyl bromide	<del>39.</del>	Antimony pentachloride	<del>73.</del>	Captan
<del>6.</del>	Acetyl chloride	<del>40.</del>	Antimony potassium tartrate	<del>74.</del>	Carbaryl
<del>7.</del>	Acrolein	41.	Antimony tribromide	<del>75.</del>	Carbofuran
<del>8.</del>	Aerylonitrile	<del>42.</del>	Antimony trichloride	<del>76.</del>	Carbon disulfide
<del>9.</del>	Adipic acid	<del>43.</del>	Antimony trifluoride	<del>77.</del>	Carbon tetrachloride
<del>10.</del>	Aldrin	44.	Antimony trioxide	<del>78.</del>	Chlordane
<del>11.</del>	Allyl alcohol	<del>45.</del>	Arsenie disulfide	<del>79.</del>	Chlorine
<del>12.</del>	Allyl chloride	<del>46.</del>	Arsenie pentoxide	<del>80.</del>	Chlorobenzene
<del>13.</del>	Aluminum sulfate	<del>47.</del>	Arsenic trichloride	<del>81.</del>	Chloroform
<del>14.</del>	Ammonia	<del>48.</del>	Arsenic trioxide	<del>82.</del>	Chloropyrifos
<del>15.</del>	Ammonium acetate	<del>49.</del>	Arsenie trisulfide	<del>83.</del>	Chlorosulfonic acid
<del>16.</del>	Ammonium benzoate	<del>50.</del>	Barium eyanide	<del>84.</del>	Chromic acetate
<del>17.</del>	Ammonium bicarbonate	<del>51.</del>	Benzene	<del>85.</del>	Chromic acid
<del>18.</del>	Ammonium bichromate	<del>52.</del>	Benzoic acid	<del>86.</del>	Chromic sulfate
<del>19.</del>	Ammonium bifluoride	<del>53.</del>	Benzonitrile	<del>87.</del>	Chromous chloride
<del>20.</del>	Ammonium bisulfite	<del>54.</del>	Benzoyl chloride	<del>88.</del>	Cobaltous bromide
<del>21.</del>	Ammonium carbamate	<del>55.</del>	Benzyl chloride	<del>89.</del>	Cobaltous formate
<del>22.</del>	Ammonium carbonate	<del>56.</del>	Beryllium chloride	<del>90.</del>	Cobaltous sulfamate
<del>23.</del>	Ammonium chloride	<del>57.</del>	Beryllium fluoride	<del>91.</del>	Coumaphos
<del>24.</del>	Ammonium chromate	<del>58.</del>	Beryllium nitrate	<del>92.</del>	Cresol
<del>25.</del>	Ammonium citrate	<del>59.</del>	Butylacetate	<del>93.</del>	Crotonaldehyde
<del>26.</del>	Ammonium fluoroborate	<del>60.</del>	n Butylphthalate	<del>94.</del>	Cupric acetate
<del>27.</del>	Ammonium fluoride	<del>61.</del>	Butylamine	<del>95.</del>	Cupric acetoarsenite
<del>28.</del>	Ammonium hydroxide	<del>62.</del>	Butyric acid	<del>96.</del>	Cupric chloride

Ammonium oxalate

Ammonium silicofluoride

Ammonium sulfamate

Ammonium sulfide

Ammonium sulfite

Ammonium tartrate

<del>29.</del>

30.

<del>31.</del>

<del>32.</del>

33.

34.

Cadmium acetate

Cadmium bromide

Cadmium chloride

Cadmium arsenate

Calcium arsenite

Calcium carbide

63.

64.

<del>65.</del>

66.

67.

68.

Cupric sulfate ammoniated

Cupric nitrate

Cupric oxalate

Cupric sulfate

Cupric tartrate

Cyanogen chloride

97.

98.

<del>99.</del>

<del>100.</del>

<del>101.</del>

102.

## **HAZARDOUS SUBSTANCES (continued)**

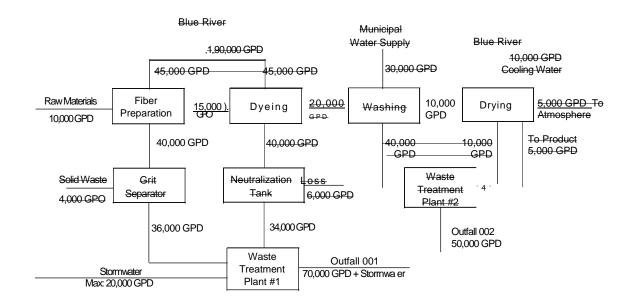
<del>103.</del>	Cyclohexane	<del>134.</del>	Ethylene dichloride	<del>165.</del>	Lead iodide
<del>104.</del>	2,4 D acid (2,4 Dichlorophenoxyacetic acid)	<del>135.</del>	Ethylene diaminetetracetic acid (EDTA)	<del>166.</del>	Lead nitrate
<del>105.</del>	2,4 D esters (2,4- Dichlorophenoxyacetic acid esters)	<del>136.</del>	Ferric ammonium citrate	<del>167.</del>	Lead stearate
<del>106.</del>	DDT	<del>137.</del>	Ferric ammonium oxalate	<del>168.</del>	Lead sulfate
<del>107.</del>	Diazinon	<del>138.</del>	Ferric chloride	<del>169.</del>	Lead sulfide
<del>108.</del>	<del>Dicamba</del>	<del>139.</del>	Ferric fluoride	<del>170.</del>	Lead thiocyanate
<del>109.</del>	Dichlobenil	<del>140.</del>	Ferrie nitrate	<del>171.</del>	Lindane
<del>110.</del>	Dichlone	<del>141.</del>	Ferric sulfate	<del>172.</del>	Lithium chromate
<del>111.</del>	Dichlorobenzene	<del>142.</del>	Ferrous ammonium sulfate	<del>173.</del>	Malathion
<del>112.</del>	Dichloropropane	<del>143.</del>	Ferrous chloride	<del>174.</del>	Maleic acid
<del>113.</del>	Dichloropropene	144.	Ferrous sulfate	<del>175.</del>	Maleic anhydride
<del>114.</del>	<del>Dichloropropene</del> dichloropropane mix	<del>145.</del>	Formaldehyde	<del>176.</del>	Mercaptodimethur
<del>115.</del>	2,2 Dichloropropionic acid	<del>146.</del>	Formic acid	<del>177.</del>	Mercuric cyanide
<del>116.</del>	Dichlorvos	<del>147.</del>	Fumaric acid	<del>178.</del>	Mercurie nitrate
<del>117.</del>	Dieldrin	<del>148.</del>	Furfural	<del>179.</del>	Mercuric sulfate
<del>118.</del>	Diethylamine	<del>149.</del>	Guthion	<del>180.</del>	Mercuric thiocyanate
<del>119.</del>	Dimethylamine	<del>150.</del>	Heptachlor	<del>181.</del>	Mercurous nitrate
<del>120.</del>	Dinitrobenzene	<del>151.</del>	Hexachlorocyclopentadiene	<del>182.</del>	Methoxychlor
<del>121.</del>	Dinitrophenol	<del>152.</del>	Hydrochloric acid	<del>183.</del>	Methyl mercaptan
<del>122.</del>	Dinitrotoluene	<del>153.</del>	Hydrofluoric acid	<del>184.</del>	Methyl methacrylate
<del>123.</del>	<del>Diquat</del>	<del>154.</del>	Hydrogen cyanide	<del>185.</del>	Methyl parathion
<del>124.</del>	<del>Disulfoton</del>	<del>155.</del>	Hydrogen sulfite	<del>186.</del>	Mevinphos
<del>125.</del>	<del>Diuron</del>	<del>156.</del>	Isoprene	<del>187.</del>	Mexacarbate
<del>126.</del>	Dodecylbenzesulfonic acid	<del>157.</del>	Isopropanolamine dodecylbenzenesulfonate	<del>188.</del>	Monoethylamine
<del>127.</del>	Endosulfan	<del>158.</del>	Kelthane	<del>189.</del>	Monomethylamine
<del>128.</del>	Endrin	<del>159.</del>	Kepone	<del>190.</del>	Naled
<del>129.</del>	<b>Epichlorohydrin</b>	<del>160.</del>	Lead acetate	<del>191.</del>	Naphthalene
<del>130.</del>	Ethion	<del>161.</del>	Lead arsenate	<del>192.</del>	Naphthenic acid
<del>131.</del>	Ethylbenzene	<del>162.</del>	Lead chloride	<del>193.</del>	Nickel ammonium sulfate
<del>132.</del>	Ethylenediamine	<del>163.</del>	Lead fluoborate	<del>194.</del>	Nickel chloride
<del>133.</del>	Ethylene dibromide	<del>164.</del>	Lead fluorite	<del>195.</del>	Nickel hydroxide

# **HAZARDOUS SUBSTANCES (continued)**

			DOOD DODD TAINCED (COITING)	<del></del>	
<del>196.</del>	Nickel nitrate	<del>221.</del>	Propargite	<del>246.</del>	Sodium phosphate (tribasic)
<del>197.</del>	Nickel sulfate	<del>222.</del>	Propionic acid	<del>247.</del>	Sodium selenite
<del>198.</del>	Nitric acid	<del>223.</del>	Propionic anhydride	<del>248.</del>	Strontium choromate
<del>199.</del>	Nitrobenzene	<del>224.</del>	Propylene oxide	<del>249.</del>	Strychnine
<del>200.</del>	Nitrogen dioxide	<del>225.</del>	Pyrethrins	<del>250.</del>	Styrene
<del>201.</del>	Nitrophenol	<del>226.</del>	Quinoline	<del>251.</del>	Sulfuric acid
<del>202.</del>	Nitrotoluene	<del>227.</del>	Resorcinol	<del>252.</del>	Sulfur monochloride
<del>203.</del>	<del>Paraformaldehyde</del>	<del>228.</del>	Selenium oxide	<del>253.</del>	2,4,5 T acid (2,4,5 Trichlorophenoxy acetic acid)
<del>204.</del>	Parathion	<del>229.</del>	Silver nitrate	<del>254.</del>	2,4,5 T amines (2,4,5 Trichlorophenoxy acetic acid amines)
<del>205.</del>	Pentachlorophenol	<del>230.</del>	Sodium	<del>255.</del>	2,4,5 T esters (2,4,5 Trichlorophenoxy acetic acid esters)
<del>206.</del>	Phenol	<del>231.</del>	Sodium arsenate	<del>256.</del>	2,4,5 salts (2,4,5 Trichlorophenoxy acetic acid salts)
<del>207.</del>	Phosgene	<del>232.</del>	Sodium arsenite	<del>257.</del>	2,4,5-TP acid (2,4,5-Trichlorophenoxy propanoic acid)
<del>208.</del>	Phosphoric acid	<del>233.</del>	Sodium bichromate	<del>258.</del>	2,4,5 TP acid esters (2,4,5- Trichlorophenoxy propanoic acid esters)
<del>209.</del>	Phosphorus	<del>234.</del>	Sodium bifluoride	<del>259.</del>	TDE (Tetrachlorodiphenyl ethane)
<del>210.</del>	Phosphorus oxychloride	<del>235.</del>	Sodium bisulfite	<del>260.</del>	Tetraethyl lead
<del>211.</del>	Phosphorus pentasulfide	<del>236.</del>	Sodium chromate	<del>261.</del>	Tetraethyl pyrophosphate
<del>212.</del>	Phosphorus trichloride	<del>237.</del>	Sodium cyanide	<del>262.</del>	Thallium sulfate
<del>213.</del>	Polychlorinated biphenyls (PCB)	<del>238.</del>	Sodium dodecylbenzenesulfonate	<del>263.</del>	Toluene
<del>214.</del>	Potassium arsenate	<del>239.</del>	Sodium fluoride	<del>264.</del>	Toxaphene
<del>215.</del>	Potassium arsenite	<del>240.</del>	Sodium hydrosulfide	<del>265.</del>	Trichlorofon
<del>216.</del>	Potassium bichromate	<del>241.</del>	Sodium hydroxide	<del>266.</del>	Trichloroethylene
<del>217.</del>	Potassium chromate	<del>242.</del>	Sodium hypochlorite	<del>267.</del>	Trichlorophenol
<del>218.</del>	Potassium cyanide	<del>243.</del>	Sodium methylate	<del>268.</del>	Triethanolamine dodecylbenzenesulfonate
<del>219.</del>	Potassium hydroxide	<del>244.</del>	Sodium nitrate	<del>269.</del>	Triethylamine
<del>220.</del>	Potassium permanganate	<del>245.</del>	Sodium phosphate (dibasic)	<del>270.</del>	Trimethylamine
<del>271.</del>	<del>Uranyl acetate</del>	<del>280.</del>	Zinc ammonium chloride	<del>289.</del>	Zinc nitrate
<del>272.</del>	<del>Uranyl nitrate</del>	<del>281.</del>	Zinc borate	<del>290.</del>	Zinc phenolsulfonate
<del>273.</del>	Vanadium pentoxide	<del>282.</del>	Zinc bromide	<del>291.</del>	Zinc phosphate
<del>274.</del>	<del>Vanadyl sulfate</del>	<del>283.</del>	Zinc carbonate	<del>292.</del>	Zinc silicofluoride
<del>275.</del>	Vinyl acetate	<del>284.</del>	Zinc ehloride	<del>293.</del>	Zinc sulfate
<del>276.</del>	Vinylidene chloride	<del>285.</del>	Zinc cyanide	<del>294.</del>	Zirconium nitrate
<del>277.</del>	Xylene	<del>286.</del>	Zinc fluoride	<del>295.</del>	Zirconium potassium fluoride
<del>278.</del>	Xylenol	<del>287.</del>	Zinc formate	<del>296.</del>	Zirconium sulfate
<del>279.</del>	Zinc acetate	<del>288.</del>	Zinc hydrosulfonate	<del>297.</del>	Zirconium tetrachloride

#### **EXAMPLE**

#### **LINE DRAWING**



Schematic of Water Flow Brown Mills, Inc. City, County, State